ABSTRACT

[1092] Upon power on, a terminal performs cell selection, finds the most suitable cell to receive communication service, and camps on this cell (the serving cell). The terminal thereafter performs "C2-based" cell reselection if a better cell is found, "non-C2 based" cell reselection if the current serving cell cannot be camped on, "power scan" cell reselection if the C2-based or non-C2 based cell reselection fails, and cell selection if the power scan cell reselection fails. For the power scan cell reselection, the terminal initially performs a power scan and obtains received signal strength measurements for a list of RF channels. This list includes fewer than all RF channels evaluated by the cell selection. The terminal then acquires and decodes the N strongest RF channels, preferably in parallel, to find a suitable cell. The terminal selects a suitable cell, if found, with the highest C2 value as the new serving cell from which to receive service.